DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014518 Address: 333 Burma Road **Date Inspected:** 03-Jun-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yang. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

Outside Yard:

Bay 1: CB15.

This QA Inspector observed that no significant work was being performed on the above mentioned CB at the time when this QA was present.

Bay 8: CB17.

This QA Inspector observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joints FB3058-056-030 & FB3058-055-030. Welders are identified as 054459 & 054460. ZPMC Quality Control (QC) is identified as Feng Ya Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2233-B-U2-F.

CB11, CB12, CB13 & CB16:

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This QA Inspector observed that no significant work was being performed on the above mentioned CB's at the time when this QA was present.

CB14:

During random inprocess inspection of this CB, this QA Inspector observed ZPMC personnel performing Ultrasonic Testing (UT) of the welds after repair welding. ZPMC QC was identified as Guo Yuan Ting. No other significant work was being performed on this CB at the time when this QA was present.

Trial Assembly:

CB7:

During random inprocess inspection of this CB, this QA Inspector observed ZPMC personnel performing Visual Testing (VT) & Magnetic Particle Testing (MT) of the hold back welds. Areas identified as not complying with the contract documents were repair welded. Welder was identified as 220067. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Zhang Xiao Ming. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-4G(4F)-Repair.

This QA Inspector also observed ZPMC personnel performing repair welding i.e. base metal restoration of 5 nos of mis-located cable bearer holes on the I-rib of bottom panel identified as BP206A. This repair welding was done as per the procedure for patching mis-located holes as specified in ABF submittal ABF-SUB-000200R02. Prior to welding, these holes were elongated and MT tested. Welder was identified as 053742. Welding process was identified as FCAW. ZPMC QC was identified as Zhang Xiao Ming. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-3G(3F)-Repair-misdrilled holes. Refer attached photos for reference.

CB8:

During random inprocess inspection of this CB, this QA Inspector observed ZPMC personnel doing Ultrasonic Testing (UT) of the hold back welds after repair. Following welds were again identified and marked for repair welding:

- CB202A-008-001, 003 & 015.

CB9:

This QA Inspector observed the following work in progress:

SMAW of weld joints SP202A-009-019, 021, 023, 025, 027 & 029. Welders are identified as 067829 & 067656. ZPMC QC is identified as Li Jia. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2114.

CB10:

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Notification No: 005889 – Punch list item no: 406.

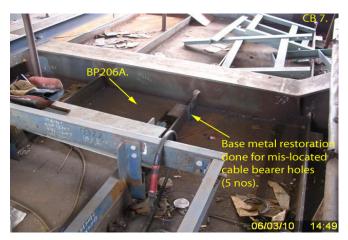
This QA inspector performed MT & UT of approximately 100% of an area that has been previously tested and accepted by ZPMC QC personnel. This QA Inspector has generated MT & UT report for this date. NDT was done on the locations on the all the four Floor Beams (FB205) where unspecified cope holes were repair welded. Refer attached photos for details.

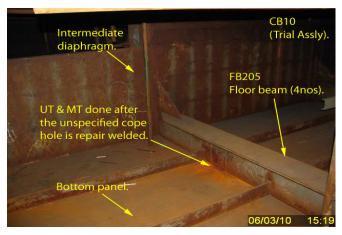
Bay 14:

No significant work was being performed in this Bay at the time when this QA Inspector was present.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.







Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural

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Materials for your project.

Inspected By: Wadkar, Sailesh Quality Assurance Inspector

Reviewed By: Hall,Steven QA Reviewer